IN THE SPECIFICATION:

Please AMEND the paragraph beginning at page 12, line 9 as follows:

When it is assumed that a first data frame (Data Frame 1) is a sector, a second data frame (Data Frame 2) is an ECC block, the scrambled data amount in the first data frame is b, the scrambled data amount in the second data frame is B, the scrambled data amount in the innermost circumference track is A, and the scrambled data amount of two tracks in the outermost circumference is C, the following condition 1, condition 2, and condition 3 must be met, and the random data generation cycle of the random data generator in a scrambler of an optical system must be equal to or greater than ~~Bb~~ x C/B. The same values from the random data generator or the same decoding values can be used while the random data generator does not exceed α x /B.

Condition 1) Data Frame 2 = n x Data Frame 1, n is an integer,

Condition 2) |A/B| =α, |A/B| represents the integer part of A/B.

Condition 3) ~~b x C/B = B~~ |C/B| = β, |C/B| represents the integer part of C/B.

Please AMEND the paragraph beginning at page 12, line 21 as follows:

"When Data Frame 1 = 2K (b), Date Frame 2 + 32K (B), and the scrambled data amount of two tracks in the outermost circumference = 284K (C), a random data generator..."

Please AMEND the paragraph beginning at page 13, line 1 as follows:

Example 2) The first case of an HD-DVD having a line density in a tangential direction approximately twice as high as that of a DVD

When Data Frame 1 = 4K (b), Data Frame 2 = 64K (B), and the scrambled data amount of two tracks in the outermost circumference = 568K (C), a random data generation cycle must be equal to or greater than 35.5 K (=4K x 568/64K). Since α = int |120K/64K| = 1, it is possible to use an initial value or a decoding value while the random data generation cycle does not exceed 64K.

Please AMEND the paragraph beginning at page 13, line 8 as follows:

Example 3) The second case of an HD-DVD having a line density in a tangential direction approximately twice as high as that of a DVD

When Data Frame 1 = 8K (b), Data Frame 2 = 64K (B), and the scrambled data amount of two tracks in the outermost circumference = 568K (C), a random data generation cycle must

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be equal to or greater than 71 K (=8K x 568/64K). Since α = int |120K/64K| = 1, it is possible to use an initial value or a decoding value while the random data generation cycle does not exceed 64128K.

        Please AMEND the paragraph beginning at page 13, line 15 as follows:

        Example 4) The third case of an HD-DVD having a line density in a tangential direction approximately twice as high as that of a DVD

        When Data Frame 1 = 2K (b), Data Frame 2 = 64K (B), and the scrambled data amount of two tracks in the outermost circumference = 568K (C), a random data generation cycle must be equal to or greater than 17.75K (=4K x 568/64K), and the scrambler of a general DVD system can be used. Since α = int |120K/64K| = 1, it is possible to use an initial value or a decoding value while the random data generation cycle does not exceed 6432K.